CASTLEMAINE NATURALIST

OCTOBER '77 18

RIVERS, CREEKS, AND MAN

The Goldfield creeks have suffered considerable assault over the past 130 years, and little of the original fauna and flora remain. There are few records of the original countryside, but this account of the Bendigo Ck. could well apply to our local streams (from F. Cusack) "Bendigo- A History")

"It was 1851 and spring had already come to the valley. The waters of old Bendigo's Creek, muddied with yellow clay from the winter rains, were clear again. Wattles glowed along its banks and the bush was splashed with flowers- purple sarsaparilla cascaded over the rocks; there were starry bushes of waxplant, and furry red spiderflowers glowed among the tussocks. The air was honey sweet and vibrant with bird calls- the plaintive calling of the cuckoo, thrushes calling and leatherheads beating out their ripple of song, and along the creek, parrots, scarlet, blue and emerald, dipped and flickered through the gums".

Other accounts, from "Records of the Castlemaine Pioneers" give some glimpses of the original countryside

River Red Gums (A recollection by A.C. Yandell, p 19) (1852)

"Where the town of Castlemaine now stands was a lovely spot in those days, with some grand old gum trees growing"

(Some of the old stumps are still present in Camp Cres; there must have been some mighty trees in the town)

Barkers Creek (a similar report from R Mitchell, p 39 (1853)

"The road from Castlemaine to Harcourt I thought the prettiest I had ever walked. The creek meandering along the roadside, the magnificent trees under the shade of which we rested neminded me greatly of places at home"

The Original Forest Creek (From James Dunne, "Records of the Castlemaine Pioneers" page 229. This would describe the Creek before straightening and other "improvements")

"Forest Creek wound its way around the south side of the rocky hillock at the gasworks site and meandered through where the old Crown Hotel stood in after years, and turned into its present course just behind where Mr George Ferries monumental works now stands"

Sole responsibility for the devastation does not rest with the miners however.

Changes in the Tongala District (Reprinted from "Recollections of Squatting In Victoria," Edward M Curr, MUP; first written in 1887. Possibly similar changes occurred in local streams)

".....some five and thirty years only have passed and Blacks, reeds and bell-birds are gone.

Those (changes) to which.... the introduction of livestock have led up to the present are an increase in our water supply, alterations in our creeks and rivers and a increase in the productiveness of the soil. These results have come about in this way. By trampling of stock the ground has been hardened and drainage increased; the beds of rivers, creeks and lagoons by the same means have also been rendered more impervious to soakage, and their banks a little less precipitous, so that our watercourses are more easily filled than they used to be, and retail water longer; from the same cause floods are no doubt more extensive and frequent than in the past."

Water Birds in the Early Days (Henry Boyce, in Records of the Castlemaine Pioneers" page 116, of experiences at Dowling Forest (near Ballarat))

".... and during the intervals we shot innumerable wild ducks, plover and other birds whose names we did not know"

Some of the river flats must have been very fertile.

(From the files of "Mount Alexander Mail" May 2, 1863)

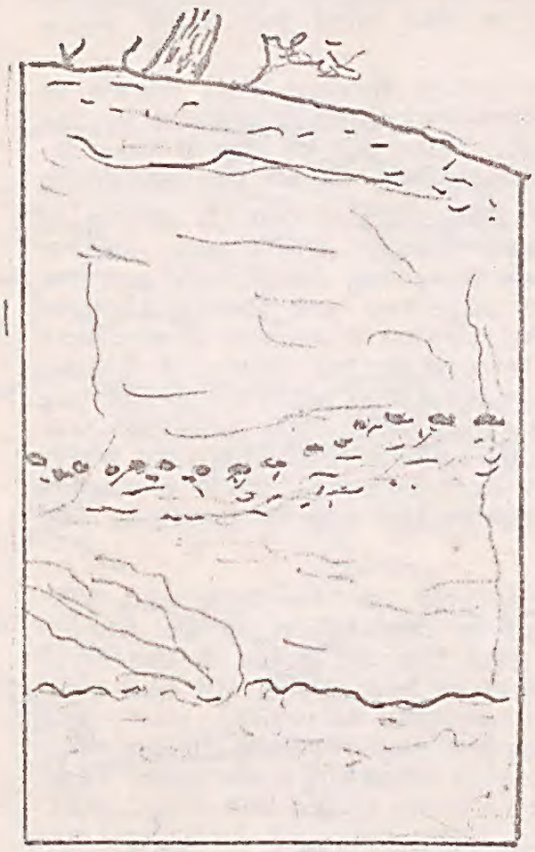
Mr Holmes, the gardener, claims to have grown the largest potatoes in Victoria. They were grown on ground so long occupied by Messrs Alpin and Ulrich- the SAVANS -. One of these tubers tipped the scales to six pounds (2.7 kg)... there were a great many from 2 to 4 pounds (1 to 2 kg). Formerly the site of a sheep camp, it was later covered with a thin layer of sludge. It was neglected by Mr Holmes, and carried a fine crop of rank and matted weeds. Imagine his surprise, when he commenced unearthing his crop. They were said to be of fine quality.

In the "Mount Alexander Herald" of February, 1861, it is reported that Mr Tasker is now growing onions at Guildford, of up to one and a half pounds (2/3 kg) in weight. (Contr. by Ray Bradfield)

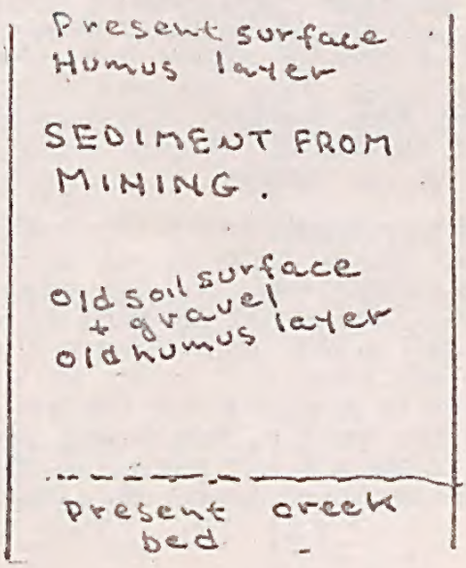
Mining soon made great changes.

SILTATION OF STREAMS AND RESERVOIRS

Dealing with the upper waters of the Loddon River and its tributaries, the following extract from the Annual Report of the Sludge Abatement Board for 1905 gives a survey of the effects of mining operations up to that time.



CREEK BED (Sandy Ck, south of Maldon) Showing almost 2m of sediment from mining operations



"In regard to complaints made by land holders and others as to pollution of river water and injury to lands adjacent to the stream through mining operations carried on in the Castlemaine district, the Board . . . has now the honour to submit the following report:—

"1. The watershed of that portion of the Loddon River situated upstream of the Laanecoorie weir stretches along the northern slope of the main divide from the vicinity of Trentham to a point near Lexton, and extends thence in a northerly direction. It contains an area of 1,590 square miles of country; mostly auriferous, embracing the well-known and long-established diggings at Daylesford, Smeaton, Creswick, Clunes, Talbot, Maryborough, Carisbrook, Dunolly, Maldon, Castlemaine, and other centres. From the earliest days of gold seeking in Australia, the various classes of mining, viz., quartz, deep alluvial, shallow alluvial, and sluicing, both gravitation and hydraulic, have been in operation at these places. In those early days, wherever gold was discovered, the rivers and creeks were looked upon as the natural receptacles for sludge and tailings, no consideration being given to the injurious effect likely to accrue at lower levels from the filling up of the watercourses. Up to the seventies little heed was given to the methods of the miner, but about 1872 the attention of land owners immediately concerned was drawn to the matter, although nothing was done then to rectify things. During the year 1886, however, affairs assumed such a serious aspect throughout Victoria as to necessitate the creation of a Board to inquire into and report on the extent of the injury caused by sludge from mines, and the best means of preventing or mitigating future damage.

"2. The evidence taken by that Board at Newstead, Castlemaine, and Chewton was to the effect that long and deep waterholes in the river had been completely filled with sludge and mining debris: that the Loddon flats had been covered 4 feet to 5 feet in depth with silt, and that creek beds had been raised, necessitating alteration in heights of municipal bridges, and the erection, in some cases, of new ones. It was also found necessary to construct a new road between Newstead and Guildford. The general bed of the river, independently of waterholes, had been raised 3 feet or 4 feet. The Shire engineer of Newstead, although then in his 25th year of office, could not remember whether or not there was any fish in the river. He considered that the water in the Loddon then 'contained too heavy a deposit of sludge to render it really valuable for irrigation.' Farmers testified that land formerly cultivated was then too extensively sludged, and made so much more liable to flooding, as to render it useless for agricultural purposes. It was said in one case that value had depreciated from £20 to £10 per acre on 150 acres. Land had to be banked to keep out the sludge. Municipal valuations were successfully appealed against on the grounds of depreciation of values, more especially on flats, having been made unfit for cultivation by deposits thereon of salt. Two horses had died (one in 1883 and the other in 1884) through accumulation of sand in the stomach. It was stated that Campbell's Creek was very much silted up in 1868, and that since the introduction of the Coliban water down the Yapeen channel things had been worse owing to sluicing.

"3. For some years after the water supply from the Coliban scheme became available, sluicing operations in the Castlemaine district appear to have been conducted somewhat vigorously, and during that time, no doubt, a large quantity of solid matter found its way into the Loddon. In course of time, however, as the ground commanded by the Government races, and suitable for this method of mining, became worked out, business gradually slackened off until about the end of the nineties, when mining in this locality became very slack. The condition of the river water during this dull period was, no doubt, more satisfactory than it had been for many years previously.

"4. During the year 1898, attention having been drawn to the success achieved in connexion with dredge mining in the North-eastern District, a dredging boom set in, and it was decided to try this system at Castlemaine. About the beginning of 1899 the pioneer dredging plan of the district began to work in Campbell's Creek, and shortly afterwards another started. At first the operations were not financially successful, but after a while matters improved and this method of winning gold is now in the Castlemaine district a pronounced success. Within the Loddon watershed, upstream of Laanecoorie, the number of dredging plants now at work is 30, and the total yield of gold for the years 1903, 1904 and 1905 was 52,257 ounces. About the close of 1903, a supplementary water supply from the Upper Coliban Reservoir was made available, the result being renewed activity in the way of dredging and hill sluicing in summer.

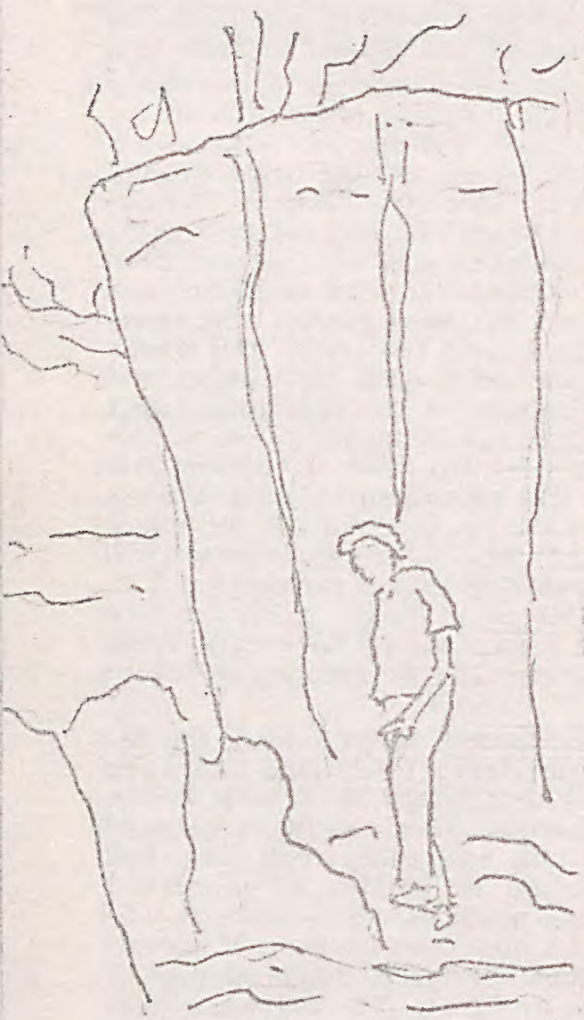
"5. At the Newstead inquiry, held on the 14th and 15th ultimo, the evidence was similar to that taken by the Sludge Board in 1886. It was stated that the old holes in the river channel had been filled up, the river bed raised, silt had been deposited on the adjacent flats to their detriment, stock had been bogged and drowned, horses had died through the accumulation of silt in the stomach due to drinking river water, and that municipal bridges would have to be raised and lengthened.

"6. After careful consideration of the evidence, and having examined the localities affected, the Board finds that the present conditions are as stated hereunder.

"7. The deep waterholes in the bed of the river above Eddington, being now all silted up, the matter in suspension is carried further down the river than formerly, and within recent dry years a greater length of flowing water has been rendered useless for stock supply, and a larger area of land is prejudicially affected.

"8. The evidence recently taken at Newstead shows that since the Laanecoorie weir was built a considerable quantity of sludge has settled in the basin. This could be accurately determined only by survey and comparison of present with original cross sections, but it seems that in the past nine years there has been at the weir a deposit in the bed of about 18 inches of silt, and on the slopes from 10 inches to nothing. Near the head of the basin, of course, the deposit has been greater. The sludge already settled, however, does not, apparently, represent a large percentage of the total content of the storage.

"9. Until the Laanecoorie storage is nearly empty the sludge is settled in the basin. When the stored water is exhausted, the ordinary flow (about 2,000 c.f.m.) including the water pumped from the Charlotte Plains mines and others, cuts a channel about 14 feet wide by half a mile long through the sludge in the basin, and deposits this latter stuff in the bed of the river for about three-quarters of a mile below the weir, evidence having been given that the depth of this deposit has amounted in the last nine years to about 7 feet just below the tail gauge. The bad results just mentioned have been caused by sludge escaping . . ."



Example of gully erosion, Spicer Gully (Tarilta)

Erosion is rapid after the surface layer is removed.

Photographs and sketches give an idea of the activities of the miners

FOREST CREEK DIGGINGS after Gold Diggers + Diggings.
Note also the almost bare hills.

It is surprising that any wildlife has survived, and particularly fish. The following list of local fish (1977) has been prepared by Mr Kel Crossley.

FISHES OF THE LOCAL STREAMS AND RESERVOIRS by K. Crossley

CATEGORIES 1. Widespread and abundant 4. Widespread and rare
5. Restricted and rare 6. Survival is doubtful

Campaspe River Fishes mainly caught are Brown Trout, Redfin, Carp (Australian), European Carp and Golden Perch (Yellow Belly).

Categories are

Trout (1)
Redfin (1)
Carp(Aust) (4)
European Carp (1)
Golden Perch (Yellow Belly) (1)
Tench

Survival of most of the first three fishes& Golden Perch, would depend on what the Fisheries and Wildlife are doing to control the menace of the European Carp; although at the present stage the Yellowbelly seems to be thriving on the smaller fry of the carp in the Murray system.

Loddon River Fishes mainly caught are Trout (Rainbow and Brown), Redfin, Murray Cod, Australian Carp, European Carp, Tench, Blackfish, Golden Perch, Silver Perch and Gunter (or Brim).

Categories are

Trout (1)	Aust. Carp (1)	Golden Perch (1)
Redfin (1)	Tench (1)	Gunter (Brim) (5)
Murray Cod (1)	Blackfish (5 & 6)	Eur. Carp (1)

Loddon River flows through Cairn Curran Reservoir,, Laarnecoorie Weir and Fernihurst Weir before entering the Murray River at Swan Hill. There is good trout fishing in the upper reaches and in Cairn Curran Reservoir. So far the European Carp has only reached the lower wall of Laarnecoorie and lets hope they go no further otherwise once in Cairn Curran all other fishing would become extinct.

Deep Creek Fishes mainly caught are Trout, Redfin, Blackfish, and Golden Perch.

Categories are

Brown Trout	(1)	Blackfish	(5 & 6)
Redfin	(1)	Golden Perch	(4)

Deep Creek flows through Tullarop Reservoir which is Maryborough's water supply, and junctions with the Loddon River at Eddington.

Good trout and Redfin fishing are experienced in Tullarop and the upper reaches of the creek mainly contain Brown Trout.

Harcourt Reservoir Fishes mainly caught are Brown and Rainbow Trout and Redfin. Catergories are

Brown Trout (1)	Rainbow Trout (1)	Redfin (1)

Forest and Barkers Creek Fishes mainly caught are Brown Trout, Redfin, Tench and Australian Carp.

Catgories are

Brown Trout (1, at certain times of the year)	Tench (1)
Redfin (1)	Australian Carp (1)

Both creeks flow through the City of Castlemaine. The Forest Creek junctions with Barkers Creek near the Johnstone St which flows into the Loddon River at Guildford.
During the spawning season for trout good catches are made mainly in the upper reaches of Barkers Creek. These fish come from the Loddon River and Cairn Curran to spawn.

Colliban River Fishes mainly caught are Trout and Redfin.
Categories are Trout (1) and Redfin (1)

Malmsbury Reservoir Fishes mainly caught are Trout and Redfin.
Categories are Trout (1) and Redfin (1)

Chemical pollution has become increasingly important worldwide. Even our local streams show evidence of this.

The process can be arrested, as shown by this account of changes in a Welsh river.

EBBR FAWR - A RIVER RESTORED

Ebbr Fawr, a Welsh river that had been almost fishless for a century, now boasts a wide variety of fishes. The repopulation has followed improved treatment of effluent over the past five years.

For decades, wastes from the iron and steel works on the river ha. been allowed to run into the river. Effluents included acids, metals and oil, and in the upper reaches had killed all life except soil bacteria, algae and fungi. Downstream, addition of coal wastes and sewerage had killed even most of these.

In 1968 a plan to improve river quality began, with effluent treatment at the steel works, coal washing plants and new sewerage systems.

Eels were first to recolonise the river, with the first run of eels in living memory. Now trout, stoneloach, stickleback and bullhead are established, and flounder is moving up past the tidal limits.

Further effluent treatment is planned. The improvement to date is encouraging in that it has occurred despite very low rainfall.

Could our streams be restored to something like their original condition?

Could we make the water clear again, with wattles glowing along the banks and the birds flickering through the air?

Perhaps we could read in the "Castlemaine Mail" of the first sighting of platypus in the City in living memory.

"Got the gas stove? Now on to the old tank then the washing machine—and we're over!"

CASTLEMAINE FIELD NATURALISTS' CLUB

Monthly meetings are held on the second Friday of each month at the Castlemaine Education Centre (SEC Building, Mostyn St). Visitors and prospective members are invited to attend the club's sessions.

Pres: Mr R. Bradfield. Sec: Mrs R. Mills. Treas: Mr L. Bransgrove. Committee: Mr G. Sitch, Mr G. Broadway (V. Pres), Mr & Mrs M. Winterbottom, Mr F. Meyer, Miss J. Chapman, Mrs B. Singleton, Miss F. McIvor, Mr E. Perkins (Newsletter Ed)

Meeting Program

October Meeting Frid Oct 14
Members night. Members are invited to contibute items

November Meeting Frid Nov 11
Film night.

December Meeting Frid Dec 9
Program by Maryborough F.N.C.

Excursion Program

Oct 8-9 Grampians campout
See Mr Sitch for details.

Sunday Oct 16 Rheola Bus Trip
Leave from Ed. Centre at 10 am return by 6 pm approx; fare is $2 adults, $1 under 16.
Leader is Mr Bradfield.

Sunday Nov 6 Mt Beckworth
Joint excursion with Creswick Field Naturalists Club.

Camera Club

Program for 8 pm on Tues Oct 18 will be given by Mr Perry of Eaglehawk. Subject will be Whipstick slides.
CFNC members are invited to the meeting.

Brisbane Ranges Campout

Our delegate for the campout on Oct 1-2 is Mrs Singleton. The next WVFNCA campout will be at Vaughan/Fryerstown on April 22-23, when we will be the host club.

Create six parks, says land council

The Land Conservation Council has recommended the establishment of six parks — two national, two State and two regional — in land-use proposals for the Corrangamite area in southern Victoria.

The report, published yesterday, supports creation of a new 10,000 hectare national park at Cape Otway.

It says the park — mainly the wet mountain forest of the Otway Ranges — includes "magnificent examples of myrtle beech gullies, cascading streams and dramatic undeveloped coastlines."

It proposes enlarging Port Campbell National Park to 6600 hectares, including all the coastal public land frontages from Cape Otway to Warrnambool.

"This park, situated along some of the most spectacular coastline in Australia, is of international significance," the report says.

The major State park recommended is the extension of the Angahook State Park to the west, creating a park of 20,000 hectares stretching from Airey's Inlet to Addis Bay.

The council's proposed recommendations cover 2227 square kilometres of public land, most of it to the south of Lake Corangamite.

It proposes two small regional parks, 29 wildlife reserves and several flora and fauna and bushland reserves.

Extensive areas — comprising 36 per cent of public land — are recommended for hardwood production, a further 4 per cent for softwood.

Low-intensity timber production is also to be allowed within some of the parks.

The majority of lakes are placed in a new category and proposed as lakes reserves.

The council urges upgrading of the Great Ocean Road and suggests changing the new Port Campbell park's name to "Moonlight Head" or "Western Entrance".

Publication of the land-use proposals is the second step before making final recommendations to the Ministry for Conservation.

The public has 60 days to reply to the report.

THE AGE, September 21, 1977